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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,261	09/16/2003	Martin A. Frith	ZL 0258	1454

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EXAMINER

SMITH, PHILIP ROBERT

ART UNIT

PAPER NUMBER

3739

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,261

Applicant(s)

FRITH ET AL.

Examiner

Philip R Smith

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

[01] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5/16/05
[02] Claims 1-13 rejected under 35 U.S.C. 102(b) as being anticipated by Peterson et al. (5,630,417).

[03] *With regard to claims 1-3:* Peterson discloses a body (comprising "control housing 12") and a rocker switch ("control button 30," column 4/ lines 24-25), at least one magnet ("magnets 38 and 40," 4/16-17), and at least one Hall effect sensor ("hall-effect sensor 42," 4/23-25). Peterson further discloses a neutral position ("balanced or central position," 3/64-66) between a minimum spacing and maximum spacing between the magnet and Hall effect sensor wherein a first function ("rotates at its maximum speed in the forward direction") is affected at minimum spacing ("tilted fully forward," 3/67-4/3) and a second function ("rotates at maximum speed in the reverse direction") is affected at maximum spacing ("fully tilted in the opposite direction," 4/4-5).

- [04] *With regard to claims 4-7:* Peterson discloses a pivot ("pin 34," 3/56-59), and a plurality of springs ("four springs," 4/13-15) to bias the rocker switch to a neutral position, which may be positioned on each side of a pivot connection of the rocker switch ("between the control button and recess 32").
- [05] *With regard to claim 8:* In reduction to practice, it would be obvious to a person of ordinary skill that the plurality of springs disclosed by Peterson comprise dome springs, which are well known.
- [06] *With regard to claims 9-13:* Peterson discloses that the Hall effect sensor is embedded in said body (4/23-24) and said magnet[s] are mounted on said rocker switch (4/16-17). Peterson discloses a surrounding housing ("actuator 28... located on an outside surface of the control housing 12," 3/37-39) to which the rocker switch is mounted, which is removably mounted to said body. It is clear from Fig. 2 that the rocker switch is mounted on a pivot ("pin 34," as noted above) which is positioned between two ends of the rocker switch, with magnets on both ends aligned with the Hall effect sensor. It has been noted above that there is a biased neutral position wherein distances increased/decreased from the neutral position control different functions of the endoscope.

Claim Rejections - 35 USC § 103

[07] The text of those sections of Title 35, U.S. Code The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- [08] Claims 1-20, filed 16 September 2003, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff (4,025,930), patented 24 May 1977, in view of Tamura (2004/0212344), filed 25 April 2003.
- [09] *With regard to claims 1 & 14:* Wolff discloses a body (comprising "pivot bracket 36") and a rocker switch ("rocker-type switch 29," 4/54-55), a plurality of magnets ("magnets 30 and 31," 4/54-55), and a plurality of magnetic switches ("magnetic switch 34" and "magnetic switch 36," 4/59-5/2), wherein the rocker switch brings different pairs of magnets and magnetic switches closer together.
- [10] Wolff does not disclose that the magnetic switches are particularly those of the Hall-effect type. Tamura discloses in [0058] the following: "It is noted that [hall effect] switch 118 could also be a reed switch or any other magnetic sensor without departing from the spirit of the invention." At the time of the invention, it would have been obvious to a person of ordinary skill in the art that Hall effect

sensors are a well-known type of magnetic sensor for sensing the proximity of a foreign object containing an embedded magnet. It would have been obvious to replace the magnetic switches disclosed by Wolff with the Hall effect sensor disclosed by Tamura.

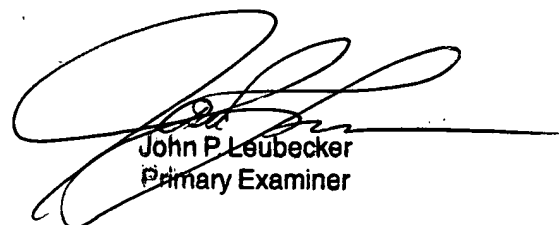
- [11] *With regard to claims 2-3:* Wolff further discloses a neutral position ("neutral position," 4/57-58) between a minimum spacing and maximum spacing between a magnet and magnetic switch pair wherein a first function ("zoom out") is affected at minimum spacing ("forward portion 33 of the rocker switch is depressed...", 4/59-65) and a second function ("zoom in") is affected at maximum spacing ("rear portion 35... depressed...", 4/65-5/2).
- [12] *With regard to claims 4-7:* Wolff discloses a pivot ("pivot point 32," 4/55-57), a plurality of springs ("spring biasing means," 4/57) to bias the rocker switch to a neutral position, which may be positioned on each side of a pivot connection of the rocker switch ("between the control button and recess 32").
- [13] *With regard to claim 8:* In reduction to practice, it would be obvious to a person of ordinary skill that the plurality of springs disclosed by Wolff may comprise dome springs, which are well known.
- [14] *With regard to claims 15-17:* As noted above, Wolff discloses a biased neutral position wherein the distance between the magnets and sensors are substantially equal. As different magnets are displaced in closer proximity to the Hall effect sensor, the independent functions are affected.

[15] *With regard to claims 9-13 & 18-20:* It is clear from Fig. 5 that the rocker switch ("29") is pivotally mounted on a pivot ("32," described above) located between a front and rear end thereof and said magnets are located in the ends of the rocker switch in alignment with the Hall effect sensors. It has also been noted above that the rocker switch is biased toward a neutral position where the distances between magnet/sensor pairs is substantially equal. It is clear from Wolff's abstract that the rocker switch is mounted to a surrounding housing ("waterproof housing") which is removably mounted to a body into which the sensors are embedded, with no mechanical or electrical connection with the external switch assembly. (Refer also to Fig. 1a, which illustrates the relative dispositions of the magnet and switch relative to the waterproof housing.)

Conclusion

- [16] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Harmon (3,673,358) discloses a rocker switch with magnetic coupling members. Van Zeeland (6,744,340) discloses a rocker switch with magnetic impedance and electrical contacts.
- [17] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip R Smith whose telephone number is (571) 272 6087. The examiner can normally be reached on 10:00-6:00.
- [18] If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272 4764. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
- [19] Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

prs



John P. Leubecker
Primary Examiner